

REMARKS

These remarks are in response to the Final Office Action dated January 19, 2010, which has a shortened statutory period for response set to expire April 19, 2010. A one-month extension of time, to expire May 19, 2010, is requested in a petition filed herewith. A Request for Continued Examination is also filed herewith.

Claims

Claims 1-3, 5, 7-14, 16-24, 26-35, 37-48, 50-51, 54, 61-62, 65, 67-68, and 71-81 are pending in the above-identified application. Claims 1-3, 5, 7-14, 16-24, 26-35, 37-48, 50-51, 54, 61-62, 65, 67-68, and 71-73, 75, 77-78, and 80-81 are rejected over prior art. Claims 74, 76, and 79 are objected to, but indicated to include allowable subject matter. Claims 1, 9, 17, 19, 21, 23, 24, 27, 31, 39, 71, 79, and 81 are amended, and Claims 82-97 are added. Claims 2, 4, 6, 13, 15, 25, 30, 36, 49, 52-53, 55-60, 63-64, 66, 69-70, and 74 are canceled. Claims 3, 8, 10-12, 14, 35, 38, 40-48, 50-51, 54, 61-62, 65, 67-68, 72-73, 75-78, and 80 remain as previously presented, and Claims 5, 7, 16, 18, 20, 22, 26, 28-29, 32-34, and 37 remain as filed. Reconsideration is requested.

Interview Summary:

A telephone interview was held on April 9, 2010 between Examiner Durnford-Geszvain and Applicants' attorney, Larry E. Henneman, Jr. Mr. Henneman thanks Examiner Durnford-Geszvain for his thoughtful consideration of this case and for the constructive nature of the interview.

During the interview, Mr. Henneman indicated that he believed that the independent Claims 1, 9, 17, 27, and 39 distinguished over U.S. 6,798,031 (Honda et al.) because Honda et al. did not disclose a housing that was made on the imager chip. However, Examiner Durnford-Geszvain indicated that he was interpreting those independent claims as being in "product-by-process" form. Examiner Durnford-Geszvain then indicated that Claim 1 would distinguish over the cited prior art if it was amended to include the limitations of Claim 2 and to provide that the molding is made "directly on the camera integrated circuit chip" and that "the molding abuts the

camera integrated circuit chip on at least two surfaces.” Examiner Durnford-Geszvain also suggested that Claims 9, 27, and 39 be amended similarly to Claim 1. Mr. Henneman agreed to amend the independent Claims 1, 9, 17, 27, and 39 as suggested by the Examiner so as to distinguish over the cited prior art.

Method Claim 17 was also discussed. Examiner Durnford-Geszvain indicated that amending the claim to recite “camera integrated circuit” instead of “integrated circuit,” the rejection over the Honda reference would be overcome.

Finally, Mr. Henneman indicated that Applicants intended to accept the indicated-allowable subject matter in Claims 74, 76, and 79.

Claim Objections:

Claim 81 is objected to because it lacks antecedent basis for “the lens assembly” and “said lens.” Claim 81 is amended to depend from Claim 80 to provide antecedent basis for “the lens assembly.” Antecedent basis for “said lens” is provided in Claim 71, from which amended Claim 81 now indirectly depends. For these reasons, Applicants respectfully request reconsideration and withdrawal of the objection to Claim 81.

Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-3, 5, 7-18, 20-21, 23-24, 26-28, 30-35, 37-41, 46-48, 50, 54, 61, 67-68, 71-73, 77, 80, and 81 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,798,031 (Honda et al.). Claim 19 is rejected under 35 U.S.C. § 103 as being unpatentable over Honda et al. in view of U.S. Publication No. 2002/0191103 (Akimoto et al.). Claims 22 and 78 are rejected under 35 U.S.C. § 103 as being unpatentable over Honda et al. in view of U.S. Patent No. 7,009,654 (Kuno et al.). Claim 29 is rejected under 35 U.S.C. § 103 as being unpatentable over Honda et al. in view of U.S. Publication No. 2004/0109079 (Fujimoto et al.). Claims 42-45 are rejected under 35 U.S.C. § 103 as being unpatentable over Honda et al. in view of U.S. Patent

No. 7,199,438 (Appelt et al.). Claims 51, 62, 65, and 75 are rejected under 35 U.S.C. § 103 as being unpatentable over Honda et al. in view of U.S. Patent No. 6,476,417 (Honda '417).

The claims are amended as agreed upon in the interview held April 9, 2010.

Claims 1-3, 5, 7-8, 46, and 50-51:

Claim 1 is amended herein to include the limitations of Claim 2 and to recite (in part) “a molding made directly on the camera integrated circuit chip” and that “the molding abuts the camera integrated circuit chip on at least two surfaces of the camera integrated circuit chip.” Therefore, for at least the reasons provided above in the Interview Summary, amended Claim 1 distinguishes over the cited prior art. Claim 2 is canceled. Claims 3, 5, 7-8, 46, and 50-51 depend, either directly or indirectly, from amended Claim 1 and are, therefore, distinguished from the cited prior art for at least the same reasons as amended Claim 1.

Claims 9-14, 16, 47, and 54

Claim 9 is amended to include limitations similar to Claim 2 and to recite (in part) “a holder made directly on the camera integrated circuit” and that “the holder abuts the camera integrated circuit on at least two surfaces of the camera integrated circuit.” Therefore, amended Claim 9 is distinguished from the cited prior art for at least the same reasons as amended Claim 1. Claim 13 is canceled. Claims 10-12, 14, 16, 47, and 54 depend, either directly or indirectly, from amended Claim 9 and are, therefore, distinguished from the cited prior art for at least the same reasons as amended Claim 9.

Claims 17-24, 26, 40-45, and 61-62:

Claim 17 is amended to recite (in part) “molding a receptacle over a camera integrated circuit,” as suggested by the Examiner in the above-summarized interview. Therefore, amended Claim 17 is believed to distinguish over the cited prior art. Claims 18-24, 26, 40-45, and 61-62 depend, either directly or indirectly, from amended Claim 17 and are, therefore, distinguished from the cited prior art for at least the same reasons as amended Claim 17. Applicants note that Claims 19, 21, 23, and 24 are also amended to be consistent with the amendments to Claim 17.

Claims 27-35, 37-38, 48, 65, and 67-68:

Claim 27 is amended to recite (in part) that the integrated circuit camera apparatus is “affixed to the circuit board,” that the lens assembly receiving apparatus is “made integrally and directly on the integrated circuit camera apparatus,” and that “the lens assembly receiving apparatus abuts the integrated circuit camera apparatus on at least two surfaces of the integrated circuit camera apparatus.” Therefore, amended Claim 27 is distinguished from the cited prior art for at least the same reasons as amended Claim 1. Claim 30 is canceled. Claims 28-29, 31-35, 37-38, 48, 65, and 67-68 depend, either directly or indirectly, from amended Claim 27 and are, therefore, distinguished from the cited prior art for at least the same reasons as amended Claim 27. Applicants note that Claim 31 is also amended to be consistent with the amendments made to Claim 27.

Claim 39:

Claim 39 is amended to recite (in part) “a camera integrated circuit chip mounted on the printed circuit board,” that the means for holding the lens include “a component molded directly on the camera integrated circuit chip,” and that the component molded on the camera integrated circuit chip is “abutting the camera integrated circuit chip on at least two surfaces of the camera integrated circuit chip.” Therefore, amended Claim 39 is distinguished from the cited prior art for at least the same reasons as amended Claim 1.

Claims 71-81:

Applicants appreciate the Examiner’s indication that Claim 74 includes allowable subject matter. Accordingly, Claim 71 is amended to include the limitations of Claim 74, and Claim 74 is canceled. There being no intervening claims between Claims 71 and 74, amended Claim 71 is in condition for allowance. Claims 72-73 and 75-81 depend, either directly or indirectly, from amended Claim 71 and are distinguished, therefore, from the cited prior art for at least the same reasons amended Claim 71. Claim 79 is also amended to recite “the lens” rather than “the lens assembly” because no antecedent basis is provided for “the lens assembly” in Claim 71.

Finally, Applicants note that Claim 71 is also amended to clarify that the spacer separates the lens and the camera integrated circuit chip when “the lens is placed in the recess after the

spacer.” This additional amendment to Claim 71 should not affect the allowability of amended Claim 71 because amended Claim 71 is not broader than the combination of previously-presented Claims 71 and 74.

For the above reasons, Applicants respectfully request reconsideration and withdrawal of all the rejections under 35 U.S.C. §§ 102 and 103.

New Claims:

New Claims 82-97 are added.

New Claim 82 is a combination of Claims 71 and 76 and also indicates that “the lens is placed in the recess after the spacer.” Because Claim 76 is indicated to include allowable subject matter, new Claim 82 is in condition for allowance. Claims 83-89 depend, either directly or indirectly, from Claim 82 and are, therefore, in condition for allowance for the same reasons as Claim 82. Support for Claims 83-89 is provided at least in Claims 72-73 and 77-81, respectively.

New Claim 90 is a combination of Claims 71 and 79 and also indicates that “the lens is placed in the recess after the spacer.” Because Claim 79 is indicated to include allowable subject matter, new Claim 90 is in condition for allowance. Claims 91-97 depend, either directly or indirectly, from Claim 90 and are, therefore, in condition for allowance for the same reasons as Claim 90. Support for Claims 91-97 is provided at least in Claims 72-73, 75, and 77-81, respectively.

Information Disclosure Statement (IDS)

An IDS is submitted herewith for the Examiner’s consideration.

For the foregoing reasons, Applicants believe that Claims 1, 3, 5, 7-12, 14, 16-24, 26-29, 31-35, 37-48, 50-51, 54, 61-62, 65, 67-68, 71-73, and 75-97 are in condition for allowance. Should the Examiner undertake any action other than allowance of Claims 1, 3, 5, 7-12, 14, 16-24, 26-29, 31-35, 37-48, 50-51, 54, 61-62, 65, 67-68, 71-73, and 75-97, or if the Examiner has any questions or suggestions for expediting the prosecution of this application, the Examiner is requested to contact Applicants' attorney at (269) 279-8820.

Respectfully submitted,

May 19, 2010

/Larry E. Henneman, Jr./

Date: _____

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CERTIFICATE OF TRANSMISSION (37 CFR 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being electronically filed with the U.S. Patent and Trademark Office on the date shown below.

May 19, 2010

/Larry E. Henneman, Jr./

Date: _____

Larry E. Henneman, Jr.